

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Gates Rubber Co., Siloam Springs

Arkansas Manufacturing Solutions

The Gates Rubber Company Revisits Lean Manufacturing

Client Profile:

The Gates Rubber Company is an international manufacturer of rubber belts, hoses, and hydraulic products. The facility, which employs less than 500 people, is located in Siloam Springs, Arkansas.

Situation:

The Gates Rubber Company (Gates Rubber) began looking at lean manufacturing principles several years ago and adopted a "focus-factory" production system utilizing cell design in the different focus factories. Process improvements and changes occur often at Gates Rubber but continuous improvement using lean principles had become stagnant. The company decided to pursue lean manufacturing and Six Sigma as a means to facilitate the changes necessary to insure stability and promote future growth, and named the project "Gates Lean Sigma." The company contacted the Arkansas Manufacturing Extension Network (the Network), a NIST MEP network affiliate, and requested assistance.

Solution:

The Network initially completed an assessment and review of one cellular production line and presented the identified opportunities for improvement in a summary report. The report reflected not only opportunities in the target cell but directly related to other cells and focus factories. Next, the Network laid out a plan for training and project facilitation. Fifty members of Gates Rubber's management team received a full week of lean manufacturing training by NIST MEP certified Network personnel. The training included the Lean 101 workshop and focused instruction in: visual workplace/5S; cellular manufacturing; total product management; "poke yoke," or mistake proofing; performance management; leading cultural change; set-up reduction; value stream mapping; sequenced just-in-time; and kanbans. Approximately 100 line supervisors and associates attended the Lean 101 Principles of Lean Manufacturing simulation/workshop course.

The Network applied the value stream mapping technique to illustrate the value streams in four focus factories and used the maps to create project plans for implementation. The maps reflected a one-year time frame. The Network is currently serving as a consultant/facilitator for these on-going projects.

Results:

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Educated 50 key management employees in lean manufacturing techniques.
Introduced 100 line employees to the implementation of lean principles.
Began a 5S kaizen pilot project in one cell.
Completed a material flow and waste minimization pilot project for one cell.
Completed a pull system and batch size reduction pilot project for one cell.
Implementing kanbans at key points between raw material preparation and process lines.
Targeted other cells for lean manufacturing implementations in the near future.

Testimonial:

"We at The Gates Rubber Company are pleased to find lean manufacturing experts within the state of Arkansas. The training and consulting provided by the Arkansas Manufacturing Extension Network's lean experts have been critical to Gates to remain competitive. This ensures the success of all Gates associates and stakeholders in Siloam Springs."

John Merriman, Plant Manager